Amendments to the Claims:

Claims 1-27 were pending in this application. Please cancel claims 1-27 and add the following new claims 28-40:

1.-27. (canceled).

28. (new) A method of monitoring data stored on a primary storage system comprising:

creating a sequence of mirrors-in-the-middle, each mirror-in-the-middle including a copy of data stored on the primary storage system at a fixed point in time;

checking a first mirror-in-the-middle of the sequence of mirrors-in-the-middle to see if a copy of data stored on the first mirror-in-the-middle satisfies at least one constraint; and

if not, repeating checking previous mirrors-in-the-middle in the sequence of mirrors-in-the-middle until one of the checked previous mirrors-in-the-middle includes an uncorrupted copy of data satisfying the at least one constraint.

29. (new) The method of claim 28 further comprising restoring the uncorrupted copy of data to the primary storage system.

30. (new) The method of claim 28 wherein checking comprises scanning for viruses.

31. (new) The method of claim 28 wherein checking comprises monitoring a database for consistency of constraints.

32. (new) The method of claim 28 further comprising storing the sequence of mirrors-in-the-middle using a data management appliance.

33. (new) The method of claim 28 further comprising restoring the copy of data stored on the first mirror-in-the-middle to the primary storage system if the copy of data stored on the first mirror-in-the-middle satisfies the at least one constraint.

34. (new) The method of claim 28 further comprising:

if the copy of data stored on the first mirror-in-the-middle satisfies the at least one constraint, checking a copy of data stored on at least one additional mirror-in-the-middle later in the sequence of mirrors-in-the-middle than the first mirror-in-the-middle to see if the copy of data stored on the at least one additional mirror-in-the-middle satisfies the at least one constraint.

35. (new) A data management appliance comprising:

a random-access storage unit storing a sequence of mirrors-in-the-middle, each mirror-in-the-middle including a copy of data stored on a primary storage system at a fixed point in time; and

control logic in communication with the random-access storage unit, the control logic operative to checking a first mirror-in-the-middle of the sequence of mirrors-in-the-middle to see if a copy of data stored on the first mirror-in-the-middle satisfies at least one constraint and, if not, repeating checking previous mirrors-in-the-middle in the sequence of mirrors-in-the-middle until one of the checked previous mirrors-in-the-middle includes an uncorrupted copy of data satisfying the at least one constraint.

36. (new) The data management appliance of claim 35 wherein the control logic is further operative to restore the uncorrupted copy of data to the primary storage system.

37. (new) The data management appliance of claim 35 wherein checking comprises scanning for viruses.

38. (new) The data management appliance of claim 35 wherein checking comprises monitoring a database for consistency of constraints.

39. (new) The data management appliance of claim 35 wherein the control logic is further operative to restore the copy of data stored on the first mirror-in-the-middle to the primary storage system if the copy of data stored on the first mirror-in-the-middle satisfies the at least one constraint.

40. (new) The data management appliance of claim 35 wherein the control logic is further operative to check a copy of data stored on at least one additional mirror-in-the-middle later in the sequence of mirrors-in-the-middle than the first mirror-in-the-middle to see if the copy of data stored on the at least one additional mirror-in-the-middle satisfies the at least one constraint if the copy of data stored on the first mirror-in-the-middle satisfies the at least one constraint.